



DESIGNING, DEVELOPING, AND DELIVERING WARGAMES

Date: November 16, 2023

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KEY EVENTS

On November 16, 2023, Mr. David Redpath, Senior Wargames Designer and member of the Canadian Joint Warfare Centre and Department of National Defence, presented *Designing, Developing, and Delivering Wargames* for this year's West Coast Security Conference. The key points discussed were the definition, scope, and usefulness of Wargames; who should partake in Wargaming; and how Wargames are utilised effectively.

NATURE OF DISCUSSION

Wargaming is an economical, flexible, and risk-friendly practice to aid in the creation of strategy for key-decision makers through the utilisation of realistic representations of operational parameters. Wargames are an opportunity for education that allows for recordable and repeatable simulations to aid in analysis and the ability to make decisions with uncertain information. By clarifying the desired learning outcomes and parameters beforehand, repeated, small, and simple Wargames provide Strategic and Tactical insight and decision support in both immediate and future scenarios.

BACKGROUND

Mr. Redpath outlined the role of The Canadian Joint Warfare Centre (CJWC) as seeking to foster the improvement of the Joint Force to enhance preparedness for operations in a pan-domain environment, noting the role of the Joint Research and Analysis Branch to produce Joint Warfare knowledge and advise on the use of that knowledge using tools and processes such as Wargaming, Alternative Analysis, or Red Teaming.

Mr. Redpath cited Dr. Peter P. Perla in *The Art of Wargaming*, defining a Wargame as "A warfare model or simulation whose operation does not involve

the activities of actual military forces, and whose sequence of events affects and is, in turn, affected by the decisions made by the players representing the opposing sides.” He stated that a key aspect of any wargame is a Data Capture and Analysis Plan, meaning the method by which key decisions and outcomes of the wargame are recorded for future analysis and evaluation. The objective of a Wargame is to address uncertainty and aid in the ability to make decisions with uncertain information, focusing on objective questions surrounding goals, motives, and potential reasons as to why they have yet to be achieved. Mr. Redpath suggested that a strong Wargame is one that depicts both Action and Reaction between adversaries, while providing realistic representations of time, distance and the Operating Environment, capabilities, and limitations of forces and assets. Additionally, there must be realistic outcomes of the Wargames actions and activities and realistic Situational Awareness for all sides. Lastly, in order to be effective, there must be a way to evaluate the ways, means and ends of a plan.

Mr. Redpath discussed the important distinction in the scope of Wargames, pointing to differences in Strategic and Tactical games as well as those that provide decision support and those with a developmental focus. He noted that Strategic Wargames can include broader considerations of Diplomacy, Economic factors and insight into developmental and future-minded situations, whereas Tactical Wargames are more usually providing decision support in immediate scenarios, but either type can be set looking forward in time or using current equipment, situations and tactics. Mr. Redpath stated that Wargaming is useful in expanding, exploring, and understanding Commanders’ potential manoeuvre space, and aids in course of action development and comparison, forcing function for staff and command coordination, trialling the introduction of new capabilities and concepts, and expanding the horizon of multi domain operation planning. Mr. Redpath outlined the benefits and practicality of Wargaming, highlighting the practice as economical; flexible and tailorable to include multiple domains such as Space and Cyber; and simple and portable, with a low infrastructure bill as they are location agnostic and distributable. He pointed to the problem specific nature of the practice, providing a risk-friendly environment in which to learn and adapt strategy with security-level flexibility. Lastly, he emphasised that Wargames are recordable and repeatable, which allows for the experimentation with different approaches to observe the outcomes of different plans versus a thinking enemy or changing situation.

Regarding who should take part in a Wargame, Mr. Redpath suggested that it should ideally be the individuals involved in the actual operations, plus recording staff, in order to obtain the right level of players and advisors. He stated that

players should not usually command outside of their purview in reality and each should ideally be given a specific role, with time to learn the role, its level of authority, and necessary facts. Players should study and brief their team on their understanding of any constraints prior to the game, the sponsor should supply experts to support the players, and constructing a skill matrix of the players ahead of time can ensure there are no major gaps in knowledge. Mr. Redpath stated that it is generally more beneficial to have fewer players, as anything above seven people or teams is proven to decrease interaction and learning.

Mr. Redpath discussed the necessary elements in order for a Wargame to be utilised successfully, highlighting the importance of providing clarification beforehand as to achieve the desired knowledge through the game, as all wargames are in essence an opportunity for education. He stated that repeated, smaller, and simpler Wargames have proven to be more effective than single, larger, and more complex games, and that it is imperative that the Measures of Effectiveness are well-established for the plan. He emphasised the importance of this preparedness, as the failure to do so results in the design and running of the incorrect Wargame.

KEY POINTS OF DISCUSSION

- A Wargame is a warfare model or simulation whose operation does not involve the activities of actual military forces, and whose sequence of events affects and is, in turn, affected by the decisions made by the players representing the opposing sides.
- The objective of a Wargame is to address uncertainty and aid in the ability to make decisions with uncertain information, focusing on objective questions surrounding goals, motives, and potential reasons as to why they have yet to be achieved.
- There are distinctions in the scope of Wargames; Strategic Wargames provide insight into higher level Operational situations, whereas Tactical Wargames provide decision support in lower level scenarios. Either type can be used to examine future or current plans.
- The individuals involved in the operation, plus recording staff, should be the participants in the Wargame and players should not command outside of their purview in reality. In general, it is beneficial to have fewer players as anything above seven members or teams is proven to decrease interaction and learning.
- For a Wargame to be utilised successfully, the desired knowledge must be clarified beforehand. Failure to do so results in the design and running of the wrong Wargame.



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